**Karnataka**

Karnataka comprises of four Agro Ecological Regions (AER) 3,6,8 & 19.

**Agro-Eco Region 3:** AER 3 in Karnataka comprises of Bagalkot, Ballari, Chitradurga and Koppal districts of Deccan Plateau under Agro Ecological Sub Region (AESR)3.

**Agro-Eco Region 6:** AER 6 in Karnataka comprises of Belagavi, Bidar, Davangere, Dharwad, Gadag, Kalaburagi, Raichur, Uttar Kannada, Vijayapura and Yadgir districts of Deccan Plateau under Agro Ecological Sub Regions (AESR) 6.1, 6.2 & 6.4.

**Agro-Eco Region 8:** AER 8 in Karnataka comprises of Bengaluru Rural, Bengaluru Urban, Chamarajanagar, Chikkamagaluru, Chikballapur, Chitradurga, Haveri, Hassan, Kolar, Mandhya, Mysuru and Ramnagar districts of Eastern Ghats under Agro Ecological Sub Regions (AESR) 8.2.

**Agro-Eco Region 19:** AER 19 in Karnataka comprises of Chikkamagaluru, Dakshin Kannada, Kodagu, Shivamogga, Udupi and Uttar Kannada districts of Western Ghats & Coastal Plain under Agro Ecological Sub Regions (AESR) 19.2 & 19.3.

**Major NRM issues :**

**AESR 3 :** The region is hot arid ESR with deep loamy and clayey mixed Red and Black soils, low to medium AWC and LGP 60-90 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Bagalkot | Exclusively water erosion | Soil deficient in P | Saline GW Contaminated with F, NO3 & Fe | Highly prone to drought & flood |
| Ballari | Exclusively water erosion | Soil deficient in N | Saline GW Contaminated with F, NO3 & Fe | - |
| Chitradurga | Exclusively water erosion | Low in OC& Soil deficient in N | Saline GW Contaminated with F, NO3 & Fe | Highly prone to flood |
| Koppal | Exclusively water erosion | Low in OC& Soil deficient in N | Saline GW Contaminated with F, NO3 & Fe | Highly prone to drought & flood |

**AESR 6.1:** The region is hot dry semi-arid ESR with shallow and medium loamy Black soils (deep clayey Black soils as inclusion), medium to high AWC and LGP 90-120 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Raichur | Exclusively water erosion | Soil deficient in N,P &K | Saline GW Contaminated with F, NO3 & Fe | Modreatly prone to flood & drought |
| Vijayapura | Exclusively water erosion | **-** | - | - |

**AESR 6.2:** The region is hot moist semi-arid ESR with shallow and medium loamy to clayey Black soils (medium land deep clayey Black soils as inclusion), medium to high AWC and LGP 120-150 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Bidar | Exclusively water erosion | Soil deficient in P | GW Contaminated with F, NO3 & Fe | Highly prone to drought |
| Kalaburagi | Exclusively water erosion | **-** | - | **-** |
| Yadgir | Exclusively water erosion | Low in OC&Soil deficient in N | Saline GW Contaminated with F & NO3 | Highly prone to drought |

**AESR 6.4:** The region is hot dry subhumid ESR.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Belagavi | Exclusively water erosion | Soil deficient in P & K | - | Moderate Drought |
| Davangere | Exclusively water erosion | Soil deficient in N | Saline GW Contaminated with F, NO3 & Fe | Severe Drought |
| Dharwad | Exclusively water erosion | Low in OC,Soil deficient in N&P | Saline GW Contaminated with F & NO3 | Extreme Drought |
| Gadag | Exclusively water erosion | Low in OC,Soil deficient in N&P | Saline GW Contaminated with F & NO3 | Extreme Drought |
| Haveri | Exclusively water erosion | Soil deficient in N & Low in OC | Saline GW Contaminated with F, NO3 & Fe | Extreme Drought |
| Uttar Kannada | Waterlogged | Soil deficient in N,P &K | Saline GW Contaminated with F, NO3 & Fe | **-** |

**AESR 8.2:**The region is hot dry semi-arid ESR with shallow and medium loamy Black soils (deep clayey Black soils as inclusion), medium to high AWC and LGP 90-120 days in a year.

**Major NRM issues :**

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Bengaluru Rural | - | Soil deficient in N & Low in OC | Saline GW Contaminated with F, NO3 & Fe | Extreme Drought |
| Bengaluru Urban | - | Soil deficient in N & Low in OC | Saline & GW Contaminated with F | **-** |
| Chamarajanagar | Exclusively water erosion | Low in OC | Saline GW Contaminated with F & NO3 | Extreme Drought |
| Chikballapur | - | Soil deficient in N & Low in OC | Saline GW Contaminated with F & NO3 | Extreme Drought |
| Chikkamagaluru | - | Soil deficient in N & Low in OC | Saline GW Contaminated with F & NO3 | Extreme Drought |
| Chitradurga | Exclusively water erosion | Soil deficient in N & Low in OC | Saline GW Contaminated with F, NO3 & Fe | Extreme Drought |
| Hassan | Exclusively water erosion | Low in OC | Saline GW Contaminated with F & NO3 | Extreme Drought |
| Kolar | Exclusively water erosion | Soil deficient in N & Low in OC | Saline GW Contaminated with F, NO3 & Fe | **-** |
| Mandhya | - | Soil deficient in N & Low in OC | Saline GW Contaminated with F & NO3 | Severe Drought |
| Mysuru | - | Soil deficient in N | SalineGW Contaminated with F, NO3 & Fe | Extreme Drought |
| Ramnagar | Exclusively water erosion | Soil deficient in N,K& Low in OC | Saline GW Contaminated with F & NO3 | Extreme Drought |

**AESR 19.2:** The region is hot moist subhumid to humid transitional ESR with deep, loamy to clayey Red and Lateritic soils, low to medium AWC and LGP 210-270 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Chikkamagaluru | **-** | Soil deficient in N & Low in OC | Saline GW Contaminated with F, NO3 & Fe | **-** |
| Dakshin Kannada | - | Soil deficient in N,P&K | Saline GW Contaminated with F& Fe | **-** |
| Kodagu | Exclusively water erosion | Soil deficient in P | Saline GW Contaminated with F, NO3 & Fe | **-** |
| Shivamogga | - | Soil deficient in N & K | Saline GW Contaminated with F, NO3 & Fe | **-** |
| Udupi | Waterlogged | Soil deficient in N & K | Saline GW Contaminated with F, NO3 & Fe | **-** |
| Uttar Kannada | Waterlogged | Soil deficient in N,P& K | Saline GW Contaminated with F, NO3 & Fe | **-** |

**AESR 19.3:** The region is hot humid to per humid transitional ESR with deep, clayey to loamy acidic coastal alluvium-derived soils, low AWC and LGP 240-270 days in a year.

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| **Districts** | ***Land degradation*** | ***Soil health & fertility*** | ***Water related constraints*** | ***Environmental constraints*** |
| Dakshin Kannada | - | Soil deficient in N,P& K | Saline GW Contaminated with F& Fe | **-** |
| Udupi | Waterlogged | Soil deficient in N & K | Saline GW Contaminated with F, NO3 & Fe | **-** |
| Uttar Kannada | Waterlogged | Soil deficient in N,P& K | Saline GW Contaminated with F, NO3 & Fe | **-** |